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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|----------------------|---------------------------|------------------------|
| 10/791,480 | 03/02/2004 | Ken Ohmura | KON-1857 | 2121 |
| 20311 7590 01/14/2008 LUCAS & MERCANTI, LLP 475 PARK AVENUE SOUTH 15TH FLOOR NEW YORK, NY 10016 | | | EXAMINER DOTE, JANIS L | |
| | | | ART UNIT 1795 | PAPER NUMBER |
| | | | MAIL DATE 01/14/2008 | DELIVERY MODE PAPER |

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/791,480

Applicant(s)

OHMURA ET AL.

Examiner

Janis L. Dote

Art Unit

1795

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 November 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,5-14,16-19 and 21-26 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,5-14,16-19 and 21-26 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

1. The examiner acknowledges the cancellation of claims 3 and 20 the amendments to claims 1, 5, 6, and 11 filed on Oct. 29, 2007. Claims 1, 5-14, 16-19, and 21-26 are pending.

2. The rejections of claims 1, 3, 5-13, and 16-20 under 35 U.S.C. 112 second paragraph, set forth in the office action mailed on Jun. 29, 2007, paragraph 7, have been withdrawn in response to the amendment to claim 1 and the cancellation of claim 20 filed on Oct. 29, 2007.

The rejection of claim 20 under 35 U.S.C. 102(b) over US 5,521,690 (Taffler), set forth in the office action mailed on Jun. 29, 2007, paragraph 9, has been mooted by the cancellation of claim 20 filed on Oct. 29, 2007.

The rejections under 35 U.S.C. 103(a) of claims 1, 3, 5, 8-14, 16-19, 21, and 23-26 over US 2003/0148204 A1 (Ohmura) and US 2003/0113647 A1 (Matsushima'647), set forth in the office action mailed on Jun. 29, 2007, paragraphs 11-13, where Ohmura and Matsushima'647 were considered to qualify as prior art under 35 U.S.C. 102(e), have been withdrawn because Ohmura and Matsushima'647 have been shown not to be prior art under 35 U.S.C. 103(a) and 35 U.S.C. 103(c). Applicants' representative has shown that both Ohmura and Matsushima'647 and the instant

application were owned by the same person at the time the invention in the instant application was made. See the remarks filed on Oct. 29, 2007, page 13, lines 1-5.

The rejections under 35 U.S.C. 103(a) of claims 1, 5, 8, 9, and 16-19 over Taffler combined with US 6,528,224 B2 (Ohno), of claims 1, 5, 8, 9, and 16-19 over Taffler combined with Japanese Patent 2000-010333 (JP'333), and of claims 6 and 7 over Taffler combined with JP'333 and US 5,387,665 (Misawa), set forth in the office action mailed on Jun. 29, 2007, paragraphs 14-16, have been withdrawn in response to the amendment to claim 1 filed on Oct. 29, 2007. That amendment adds the limitation of now-cancelled claim 3 that the toner particles further have a "slope of a circularity compared to an equivalent circle diameter from -0.050 to -0.010." The cited prior art does not teach or suggest toner particles having said slope limitation as recited in instant claim 1.

The terminal disclaimers filed on Oct. 29, 2007, disclaiming the terminal portion of any patent granted on this application which would extend beyond the expiration date of US Patent Nos. 7,150,952 B2 and 6,844,126 B2 have been reviewed and are accepted. The terminal disclaimers have been recorded.

Accordingly, the rejections under the ground of nonstatutory obviousness-type double patenting of claims 1, 3, 5, 6, 8-14, 16, 17, 19, and 21-26 over claims 1-8 of US Patent No. 7,150,952 B2 in view of the other cited prior art and of claims 1, 3, 8-10, 14, 16, 17, 19, 21, and 23-26 over the claims 1-27 of US Patent No. 6,844,126 B2 in view of the other cited prior art, set forth in the office action mailed on Jun. 29, 2007, paragraphs 18-21, have been withdrawn.

3. The amendment filed on Nov. 12, 2007, is objected to under 35 U.S.C. 132(a) because it introduces new matter into the disclosure. 35 U.S.C. 132(a) states that no amendment shall introduce new matter into the disclosure of the invention. The added material which is not supported by the original disclosure is as follows:

The third amended paragraph at page 15 of the specification defines the term "amorphous polyester" as follows: "'amorphous polyester' is defined [sic] that polyester resins, a clear crystal structure which is not recognized by means of X-ray diffraction, occupy at least 50 wt% of the total component resins. More specifically, polyester resins, which have a crystallization degree of less than 0.1% occupy not less than

50% of the total component resins, are known as amorphous polyester" (emphasis added).

The originally filed specification does not provide antecedent basis for the amorphous polyester definition in the amended paragraph. Rather, the originally filed specification at page 15, lines 16-22, defines the term "amorphous polyester" as "polyester molecules, a clear crystal structure which is not recognized by means of X-ray diffraction, occupy at least 50 mol% of the total component molecules. More specifically, polyester molecules, which have a crystallization degree of less than 0.1% occupy not less than 50% of the total component molecules, are known as amorphous polyester" (emphasis added). This "definition" appears to be consistent with definition of "amorphous polyester" in the record. See US 7,150,952 B2, col. 5, lines 4-9. In the response filed on Mar. 24, 2007, page 21, applicants stated that they agree with the above definition of the term "amorphous polyester."

Applicants are required to cancel the new matter in the reply to this Office Action.

Applicants' arguments filed on Nov. 12, 2007, have been fully considered but they are not persuasive.

Applicants assert that replacement of the terms "molecules" and "mol" with - resins -- and - wt - correct obvious typographic errors since the polyesters are referred to as polyester resin in the immediately preceding paragraph.

Applicants' assertions are not persuasive. There is no evidence in the originally filed specification to indicate that the 50 percentage is based on "weight," not moles. The examiner notes that the verified translation filed on Oct. 29, 2007, of the Japanese priority document Japanese Patent Application No. 2003-5970, provides the same definition of "amorphous polyester" as stated in the originally filed specification. See the translation, page 17, paragraph 0038. The contents of the Japanese priority document were incorporated by reference at page 62, lines 9-12, of the originally filed specification. Applicants have not indicated where in the originally filed specification there is antecedent basis for the 50 percentage to be based on weight as stated in the amended paragraph.

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 1, 5-13, and 16-19 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 and claims dependent on claim 1 are indefinite in the phrase "toner particles comprising a resin prepared by a poly addition or polycondensation reaction of the toner particles having an average circularity . . ." (emphasis added) because it is not clear how a toner resin is prepared by reacting toner particles that comprise said resin.

6. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

7. Claims 1, 5-14, 16-19, and 21-26 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claims contain subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art

that the inventor(s), at the time the application was filed, had possession of the claimed invention.

(1) Independent claim 1 and claims dependent thereon recite "passing the collected non-transferred toner through a toner intermediate chamber, wherein the toner intermediate chamber is provided with a cylindrical or conical structure which separates paper dust or toner granules toward the bottom of said toner intermediate chamber by utilizing spiraling flow of gas."

The originally filed specification does not provide an adequate written description of said separating step and intermediate chamber recited in the instant claims. The originally filed specification at page 11, line 20, to page 12, line 3, describes a toner intermediate chamber with a cylindrical or conical structure, which is "preferably situated vertically so as to enable easier collect of toner aggregates or paper dust. Thereby, a constitution can be provided so that paper dust or toner granules precipitated to the bottom of the aforesaid toner immediate chamber by utilizing gas spiraling gas flow" (emphasis added). Originally filed claim 2 recites that a "toner intermediate chamber is provided with a cylindrical or conical structure situated in the vertical direction which separates paper dust or toner granules toward the bottom of said

toner intermediate chamber by utilizing spiralizing flow of gas" (emphasis added). The separation step recited in instant claim 1 is broader than the originally filed disclosure because it includes separation steps where the toner immediate chamber is not required to be "situated in the vertical position" as disclosed in the originally filed specification.

(2) Claim 5, which depends on claim 1, recites that the toner resin can be an amorphous polyester resin.

Claims 6 and 7, which depend on claim 5, recite that the toner resin is an amorphous polyester resin.

Independent claim 21 and claims 14 and 23-26, which depend from claim 21, recite that the toner comprises a resin, which can be an amorphous polyester resin.

Claim 22, which depends from claim 21, recites that the resin is a polyester resin.

The originally filed specification does not provide an adequate written description of the amorphous polyester resin recited in those claims. As discussed in paragraph 3 above, the third amended paragraph at page 15 of the specification filed on Nov. 12, 2007, defines the term "amorphous polyester" as follows: "'amorphous polyester' is defined that polyester resins, a clear crystal structure which is not recognized by

means of X-ray diffraction, occupy at least 50 wt% of the total component resins. More specifically, polyester resins, which have a crystallization degree of less than 0.1% occupy not less than 50% of the total component resins, are known as amorphous polyester" (emphasis added). For the reasons discussed in paragraph 3 above, the originally filed specification does not provide antecedent basis for the amorphous polyester definition in the amended paragraph. Accordingly, the originally filed specification does not describe the "amorphous polyester" recited in the instant claims as defined by the amended paragraph filed on Nov. 12, 2007.

8. Claim 12 is objected to because of the following informalities:

In claim 12, the extraneous comma in the phrase "a toner discharge port capable for discharging toner, from the intermediate chamber" should be removed.

Appropriate correction is required.

9. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

10. US 2003/0148204 A1 (Ohmura) was published on Aug. 7, 2003. US 2003/0113647 A1 (Matsushima'647) was published on Jun. 19, 2003. Both dates are prior to the filing date of Mar. 2, 2004, of the instant application. The inventive entities of Ohmura and Matsushima'647 differ from that of the instant application. Thus, Ohmura and Matsushima'647 qualify as prior art under 35 U.S.C. 102(a). Accordingly, Ohmura and Matsushima'647 also qualify as prior art under 35 U.S.C. 103(c).

11. Claims 14, 21, and 23-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Japanese Patent 10-319813 (JP'813) combined with Ohmura, Matsushima'647, and US 6,395,442 B1 (Hayashi). See the USPTO translation of JP'813 for cites.

JP'813 discloses an image forming method comprising the steps of: (1) developing an electrostatic latent image on a photosensitive member 1 with a toner to form a toner image; (2) transporting the toner image to a receiving member; (3) fixing the toner image to the receiving member; (4) removing untransferred toner from the surface of the photosensitive member 1 with cleaning device 4 and collecting the removed-untransferred toner for reuse; (5) transporting the collected-removed-untransferred toner to a recovered toner regeneration

device 7, the "toner intermediate chamber"; and (6) separating "foreign matter," from the collected-removed toner in the regeneration device 7 to produce "recovered toner." See the translation, Figs. 1 to 3, reference claim 1 and paragraphs 0005 and 0007-0012. JP'813 discloses that the "foreign matter" includes paper dust. Translation, paragraph 0002, line 18. The JP'813 process steps meet the process steps recited in instant claim 14 and 21, but for the particular toner recited in the instant claims. According to JP'813, the collected-removed toner from the cleaning device 4 is fed into the screw pump 5a, then fluidized by compressed air supplied by the gas supplying device 5b, and then transported as a "gaseous stream" comprising the collected-removed toner and air through a transport tube 6a to the recovered toner regeneration device 7. The regeneration device 7 has a cylindrical structure, as recited in instant claim 14. See Figs. 2 and 3. The device 7 comprises a toner receiving port, where the "gaseous stream" of collected-removed toner and air enters the device 7 via the transport tube 6a. The "gaseous stream" enters a toner receiving section of the device 7, where "foreign matter" is separated from the collected-removed toner to form the "recovered toner." The "gaseous stream" comprising the remaining-recovered toner exits

the regeneration device 7 through a discharge port and travels to a hopper 2e of the developing device 2 via a transport tube. See Figs. 2 and 3, and paragraphs 0010-0012. The regeneration device 7 meets the "toner intermediate chamber" structural component limitations recited in instant claims 14 and 21.

As discussed above, JP'813 does not exemplify the use of a toner as recited in the instant claims.

Ohmura discloses a toner that has an average circularity of from 0.94 to 0.98, an average circle-equivalent diameter of from 2.6 to 7.6 μm , and a "circularity gradient versus the circle-equivalent diameter" (another name for "slope of a circularity compared to an equivalent circle diameter") of from -0.050 to -0.010. See paragraphs 0014 and 0024 to 0031; and for example, preparation of Toner 1 at paragraphs 0163-0166 and in Table 1 at page 11. Ohmura further teaches that preferably the toner average circularity is from 0.93 to 0.97, the average circle-equivalent diameter is from 3.4 to 6.6 μm , and the toner "circularity gradient versus the circle-equivalent diameter" is from -0.040 to -0.020. Paragraphs 0015 and 0024. The average circularity value range of 0.94 to 0.98, the average circle-equivalent diameter value range of 2.6 to 7.4 μm , and the gradient value range of -0.050 to -0.010 meet the circularity

and particle size limitations recited in instant claim 21. The preferred average circularity, average circle-equivalent diameter, and gradient value ranges meet the circularity and particle size limitations recited in instant claims 23-26.

Ohmura teaches that its toner is obtained by a salt-out/fusing method, which comprises forming resinous particles of a radical-polymerizable monomer, coagulating the resinous particles and colorant particles in the presence of a coagulant and fusing the coagulated particles. Paragraph 0033 and preparation of Toner 1.

According to Ohmura, its toner "makes it possible to form high quality images without resulting in insufficient fixing." Paragraph 0008 and Table 2, example 1 and the accompanying text. Table 2 reports that the toner in example 1 provided uniform imaged copies; and that after 100,000 copies, "toner filming" was not observed on the photoconductor or on the developing roll.

Ohmura does not exemplify a toner comprising a polyester resin as recited in instant claim 21. However, Ohmura teaches that the toner may comprise a releasing agent. Ohmura further teaches that "the releasing agent is incorporated uniformly within the toner particles including neighborhood of the surface

by employing toner prepared by subjecting the resin particles containing the releasing agent to salting-out/fusion."

Paragraph 0109.

Matsushima'647 also teaches that toners obtained by a salting-out/fusing method may comprise a releasing agent by incorporating the releasing agent in the resin particles. Matsushima'647 further teaches that in addition to the releasing agent, the resin particles may comprise a crystalline polyester to improve the fixing property of the toner. Paragraphs 0227, 0228, and 0237-0240. Hayashi teaches that toner particles that are obtained by salting-out/fusing resin particles comprising a crystalline polyester have excellent fixability (adhesion to the image support). Hayashi, col. 3, lines 1-10 and 20-24, and Table 3 at col. 20, example 1, which exemplifies colored toner 1, which comprises a crystalline polyester, and comparative example 1, which exemplifies colored toner 15, which does not contain a crystalline polyester. In Table 1, Hayashi reports that the toner in example 1 exhibited excellent offset resistance and excellent fixability; while the toner in comparative example 1 did not.

It would have been obvious for a person having ordinary skill in the art, in view of the teachings of Ohmura,

Matsushima'647, and Hayashi, to incorporate a crystalline polyester as taught by Matsushima'647 and Hayashi in the resin particles used to form the toner made by the salt-out/fusing method disclosed by Ohmura. It would have also been obvious for that person to use the resultant toner as the toner in the image forming method disclosed by JP'813. That person would have had a reasonable expectation of successfully practicing an image forming method that provides high quality fixed toner images that have improved adhesion to the transfer medium.

12. Claims 1, 8-13, and 16-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over US 5,521,690 (Taffler) combined with Ohmura.

Taffler discloses an image forming method using an electrophotographic printing device comprising the steps of:

- (1) developing an electrostatic latent image on the photoconductive drum with a toner to form a toner image;
- (2) transporting the toner image to a recording substrate;
- (3) fixing the transferred toner image to the recording substrate;
- (4) removing untransferred toner from the surface of the photoconductive drum with a cleaning brush and collecting the removed-untransferred toner for reuse;
- (5) transporting the

collected-removed-untransferred toner to a particle separator 24 which is connected to a toner recycling unit 25; and

(6) separating dirt particles or "large lumps of toner which has [sic: have] gone lumpy" 84 from the collected-removed toner in the recycling unit 25 to produce recycled toner. Figs. 1 and 3; col. 1, lines 10-24; col. 4, line 65, to col. 5, line 10; col. 5, lines 13-14 and 40-62; col. 6, lines 1-4 and 42-45; and col. 8, lines 24-38 and 48-64. The Taffler process steps meet the process steps recited in instant claims 1, 16, 17, and 19, but for the particular toner.

Taffler discloses that said printing method is performed by the following image forming apparatus that comprises: a photoconductive drum; a developing station 10 that comprises a toner box 16; a cleaning station 28 for removing untransferred toner from the photoconductive drum; a particle separator 24 in the form of a cyclone filter with a toner recycling unit 25; a suction duct 27 that feeds the untransferred toner from the cleaning station 28 to the particle separator 24; and a suction duct 41 that connects the toner particle separator 24 to a toner transport duct 23 that is connected to the toner box 16 of the developing station 10 to supply the toner regained from the toner recycling unit 25 to the toner box 16. Fig. 1; col. 4,

line 66, to col. 5, line 4; col. 5, lines 13-14 and 40-62; and col. 6, lines 1-4. According to Taffler, a mixture of toner with dirt particles or "overlarge lumps of toner which has [sic: have] gone lumpy" 84 is sucked out of the cleaning station 28 via the suction duct 27 to the particle separator 24 thru a toner receiving inlet, where the mixture is separated from the air stream using the cyclone filter. Col. 6, lines 42-45, and col. 8, lines 36-38. The dirt particles or overlarge lumps of toner 84 and the toner fall through the cyclone filter. The dirt particles or overlarge lumps of toner 84 remain in the bottom of the cyclone filter held back by the particle sieve 53. The toner falls through the particle sieve 53 in the recycling unit 25 to a toner setting space 57 in the recycling unit. From the toner setting space 57, the recycled toner is fed back to the toner box 16 (i.e., the "toner receiving section" recited in instant claims 16 and 17) via the suction duct 41 and the toner transport duct 23. See Figs. 1 and 3, and col. 8, lines 26-38 and 48-52. To feed the recycled toner to the toner box, ambient air is sucked in via the opened air supply openings 58 and flows through the toner setting space 57, and transports the recycled toner via the suction duct 41 and the toner transport duct 23 to the toner box 16. See Fig. 3, and col. 8, lines 52-64.

The particle separator 24 in combination with the toner recycling unit 25 meets the "toner intermediate chamber" structure recited in instant claims 1, 12, 16, and 17. The particle separator 24 has a conical structure as recited in instant claim 1. See Fig. 1 and Fig. 3. The air supply openings 58 are located vertically below the toner inlet in the particle separator 24. The dirt particles or large lumps of toner 84 spiral to the bottom the cyclone filter in a flow of air and are separated from the toner as recited in instant claim 1.

As discussed above, Taffler also does not exemplify the use of a toner as recited in the instant claims.

Ohmura discloses a toner that meets the toner limitations recited in instant claims 1, 8-13, and 18. The discussion of Ohmura in paragraph 11 above is incorporated herein by reference. As discussed in paragraph 11 above, Ohmura teaches that its toner "makes it possible to form high quality images without resulting in insufficient fixing."

It would have been obvious for a person having ordinary skill in the art, in view of the teachings of Ohmura, to use the Ohmura toner as the toner in the image forming method disclosed by Taffler. That person would have had a reasonable expectation

of successfully practicing an image forming process that provides that provides high quality fixed toner images.

13. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Taffler combined with Ohmura as applied to claim 1 above, further combined with Matsushima'647 and Hayashi.

The combined teachings of Taffler and Ohmura render obvious an image forming method as described in paragraph 12 above, which is incorporated herein by reference.

Ohmura does not exemplify a toner comprising a polyester resin as recited in instant claim 5. However, Ohmura teaches that its toner is obtained by a salt-out/fusing method, which comprises forming resinous particles of a radical-polymerizable monomer, coagulating the resinous particles and colorant particles in the presence of a coagulant and fusing the coagulated particles. Paragraph 0033 and preparation of Toner 1. Ohmura teaches that the toner may comprise a releasing agent. Ohmura further teaches that "the releasing agent is incorporated uniformly within the toner particles including neighborhood of the surface by employing toner prepared by subjecting the resin particles containing the releasing agent to salting-out/fusion." Paragraph 0109.

Matsushima'647 also teaches that toners obtained by a salting-out/fusing method may comprise a releasing agent by incorporating the releasing agent in the resin particles. Matsushima'647 further teaches that in addition to the releasing agent, the resin particles may comprise a crystalline polyester to improve the fixing property of the toner. Hayashi teaches that toner particles that are obtained by salting-out/fusing resin particles comprising a crystalline polyester have excellent fixability (adhesion to the image support). The discussions of Matsushima'647 and Hayashi in paragraph 11 above are incorporated herein by reference.

It would have been obvious for a person having ordinary skill in the art, in view of the teachings of Ohmura, Matsushima'647, and Hayashi, to incorporate a crystalline polyester as taught by Matsushima'647 and Hayashi in the resin particles used to form the toner made by the salt-out/fusing method disclosed by Ohmura. It would have also been obvious for that person to use the resultant toner as the toner in the image forming method disclosed by Taffler. That person would have had a reasonable expectation of successfully practicing an image forming method that provides high quality fixed toner images that have improved adhesion to the transfer medium.

14. Applicants' arguments filed on Oct. 29, 2007, as applicable to the rejections over Ohmura and Matsushima'647 set forth in paragraphs 11-13 above, have been fully considered but they are not persuasive.

Applicants assert that neither Ohmura nor Matsushima'647 is prior art under 35 U.S.C. 102(a) because they have perfected their claim to foreign priority under 35 U.S.C. 119 to the priority document, Japanese Patent Application 2003-059760, filed on Oct. 29, 2007.

Applicants' assertions are not persuasive. The verified English-language translation of said priority document filed on Oct. 29, 2007, does not provide an adequate written description, as required under 35 U.S.C. 112, first paragraph, of the subject matter recited in instant claims 1, 5-14, 16-19, and 21-26 for the following reasons:

(1) The translation in paragraph 0016 describes an image forming method as comprising the steps of developing an electrostatic latent image formed on a image carrying member with a toner, transferring the toner image onto a transferring material "and after that fixing, wherein the image forming is conducted by collecting and reusing non-transferred toner

remaining on said image carrying member and a toner containing collected non-transferred toner is used after passing through an toner intermediate chamber with gas." The image forming methods recited in independent claims 1 and 21 and claims 5-14, 16-19, and 22-26, which depend from claims 1 and 21, are broader than the method described in the translation. Independent claims 1 and 21, and claims 5-14, 16-18, and 22-26, which depend from claims 1 and 21, do not recite said fixing step. Nor do independent claims 1 and 21 and claims 5-14, 16-19, and 22-26, which dependent from claims 1 and 21, recite reusing the non-transferred toner as described in the translation. Nor do independent claim 21 and claims 14 and 22-26, which depend from claim 21, require that passing the collected non-transferred toner through a toner intermediate chamber is accomplished with gas as described in the translation.

(2) The translation in paragraph 0017 describes providing the "toner intermediate chamber . . . with a cylindrical or conical structure situated in the vertical direction which separates paper dust or toner aggregates toward the bottom of said toner intermediate chamber by utilizing spiralizing flow of gas." Independent claim 1 and claims dependent on claim 1 do not recite that the toner intermediate chamber is "situated in

the vertical direction" as described in the translation. Nor does claim 14 require that the toner intermediate chamber be "situated in the vertical direction" as described in the translation. Claim 14 also does not recite that a gas, let alone a spiralizing flow of gas, is used in the toner intermediate chamber to separate paper dust and toner granules from the toner towards the bottom of the toner intermediate chamber as described in the translation.

(3) The translation does not define the "amorphous polyester resin" recited in instant claims 5-7, 14, and 21-26 as defined in the amended paragraph filed on Nov. 12, 2007. See the discussion in paragraph 3 above. Accordingly, the translation does not provide an adequate written description of the amorphous polyester resin recited in those claims.

(4) The translation does not provide an adequate description of the toner intermediate chamber broadly recited in instant claims 12, 16, and 17. The translation in paragraphs 0032-0034 and Fig. 3 describe a particular toner intermediate chamber **242**. Instant claims 12, 16, and 17 do not recite the particulars of the toner intermediate chamber described in the translation. For example, the translation in paragraph 0032 describes the toner intermediate chamber **242** as

comprising "a cylindrical housing having a diameter of approximately 30 mm and a height of approximately 80 mm. The toner supplying inlet 242a is provided at the upper portion of toner intermediate chamber 242 . . . Gas introducing inlet 242b is provided at the lower portion of toner intermediate chamber 242 . . . ejecting outlet 242c is provided above toner supplying inlet 242a . . . [and] is connected to air pump motor 244 and development 4 via flexible toner transport tube 243." None of the claims recite the diameter and height of the toner intermediate chamber. Claim 16 does not recite any of the locations of the toner receiving section, the toner discharging section, and gas stream introducing port in the toner intermediate chamber as described in the translation. Neither claims 12 nor 17 recite the location of the toner discharge port as described in the translation. Nor do claims 12 and 17 recite the location of the toner receiving section described in the translation. Rather, claim 12 recites that "at least a portion of said toner receiving port is situated vertically above said gas stream introducing inlet" (emphasis added); while claim 17 recites that "at least a part of the toner receiving section is situated at the upper portion in the vertical direction of the gas introducing inlet"

(emphasis added).

Accordingly, for the reasons discussed above, both Ohmura and Matsushima' 647 are prior art to the subject matter recited in the instant claims and the rejections in paragraphs 11 and 13 over Ohmura and Matsushima' 647 and in paragraph 12 over Ohmura stand.

15. Applicants' amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicants are reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

16. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Janis L. Dote whose telephone number is (571) 272-1382. The examiner can normally be reached Monday through Friday.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Mark Huff, can be reached on (571) 272-1385. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Any inquiry regarding papers not received regarding this communication or earlier communications should be directed to Supervisory Application Examiner Ms. Claudia Sullivan, whose telephone number is (571) 272-1052.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JLD
Jan. 7, 2008

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